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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Javier Castaneda

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EXAMINER

RAMANA, ANURADHA

ART UNIT

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/724,305	Applicant(s) CASTANEDA, JAVIER	
	Examiner Anu Ramana	Art Unit 3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/21/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/23/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Inventorship

The petition to correct inventorship, filed on March 21, 2007, has been approved.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 33-55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 33 and 45, the limitations “extending through a center of said respective first hole at all points through said thickness” and “extending through a center of said respective second hole at all points through said thickness” render the claims vague and indefinite since it is unclear what structural relationship is being claimed by the Applicant. It is unclear what Applicant means by “all points.” Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 33-36, 38, 39, 45-47, 49, 50, 57 and 60 are rejected under 35 U.S.C. 102(b) as being anticipated by Esser (US 6,096,040).

Esser discloses a volar plate including: a distal head portion angled relative to the body portion; a first plurality of holes each hole having its own predefined central

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axis, the holes adapted to receive bone screws; and a second plurality of second holes, the holes adapted to receive bone screws wherein the second plurality of second holes is displaced along the head portion and the central axes of the first set can be chosen such that they extend between and non-parallel relative to the central axes of the second plurality (Figs. 19 and 20, col. 11, lines 58-67 and col. 12, lines 1-16).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 37 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Esser (US 6,096,040) in view of Pawluk (US 4,955,886).

Esser discloses all elements of the claimed invention except for the claimed number of holes.

Pawluk teaches varying the number of screw holes in a bone plate to reduce excessive strains on screws (col. 7, lines 26-29).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have varied the number of holes in the Esser plate, as taught by Pawluk, to reduce excessive strains on screws.

Claims 42-43 and 53-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Esser (US 6,096,040) in view of Talos et al. (US 5,709,686) further in view of Boucher et al. (US 5,443,509).

Esser discloses all elements of the claimed invention except for the use of screws with threads offset by 180 degrees.

Boucher et al. teach the use of threads offset by 180 degrees for unbiased starting and fast advance of a screw.

Talos et al. teach providing threaded holes in a plate so that screws can be rigidly screwed into the plate (Fig. 5 and col. 1, lines 29-32).

It would have been obvious to one of ordinary skill in the art to have used screws with threads offset by 180 degrees, as taught by Boucher et al., for fast advance of the screw. Further, it would have been obvious to providing matching threads in the screw holes of Esser, as taught by Talos et al., so that screws can be rigidly screwed into the plate.

Claims 56 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Esser (US 6,096,040) in view of Talos et al. (US 5,709,686).

Esser discloses all elements of the claimed invention except for providing threaded holes.

Talos et al. teach providing threaded holes in a plate so that screws can be rigidly screwed into the plate (Fig. 5 and col. 1, lines 29-32).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have provided matching threads in the screw holes of Esser, as taught by Talos et al., so that screws can be rigidly screwed into the plate and the underlying bone.

Claims 44 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Esser (US 6,096,040) in view of Boucher et al. (US 5,443,509) and Talos et al. (US 5,709,686), further in view of Bieri (US 3,707,107).

The combination of Esser, Boucher et al. and Talos et al. discloses all elements of the claimed invention except for the thread depths.

Bieri teaches providing a difference in depth of inner and outer threads in a threaded connection for increased axial play for improved stress and force distribution (Figs. 1 and 2, col. 2, lines 65-67 and col. 3, lines 1-23).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a difference in thread depths in the device of the combination of Esser, Boucher et al. and Talos et al., as taught by Bieri, for improved stress and force distribution. Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the head of the screw with a thread depth no more than one-half the thread depth in the holes, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Claims 58 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Esser (US 6,096,040) in view of Tellman et al. (US 5,728,099).

Esser discloses all elements of the claimed invention except for crosswise placement of fixation elements such as screws or "pegs."

Tellman et al. teach the desirability of crosswise placement of fixation elements in bone for enhanced stability of fixation (Fig. 10 and col. 3, lines 35-36).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have placed screws through the holes of the Esser plate, as taught by Tellman et al., for enhanced stability of fixation to the underlying bone.

Response to Arguments

Applicant's arguments submitted under "REMARKS" in the response filed on May 21, 2008 have been fully considered.

Applicant's arguments with respect to the rejections under 35 USC 102(b) over Esser are not persuasive because central axes passing through at least two of the first

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plurality of holes could be picked such that they are interleaved with the central axes of at least two of the second plurality of holes, due to the reverse curvature of the head portion with respect to the elongate body portion. It is the Examiner's position that depending on the viewing plane, the central axes of the holes in the head could appear interleaved.

Allowable Subject Matter

The allowability of claims 40-41, 51 and 52 is being withdrawn in view of the new rejections made in this action. The Examiner sincerely apologizes for any inconvenience caused to the Applicants by this action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anu Ramana whose telephone number is (571) 272-4718. The examiner can normally be reached Monday through Friday between 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached at (571) 272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AR
September 30, 2008

/Anu Ramana/
Primary Examiner, Art Unit 3733